

Bringing the University to Rural Ontario: Brokering Campus & Community Engagement in Haliburton

Jim Blake, Chair of U-Links Management Committee
Emily Amon, Masters student in Sustainability Studies
Stephen Hill, Professor, School of the Environment



Social Sciences and Humanities
Research Council of Canada

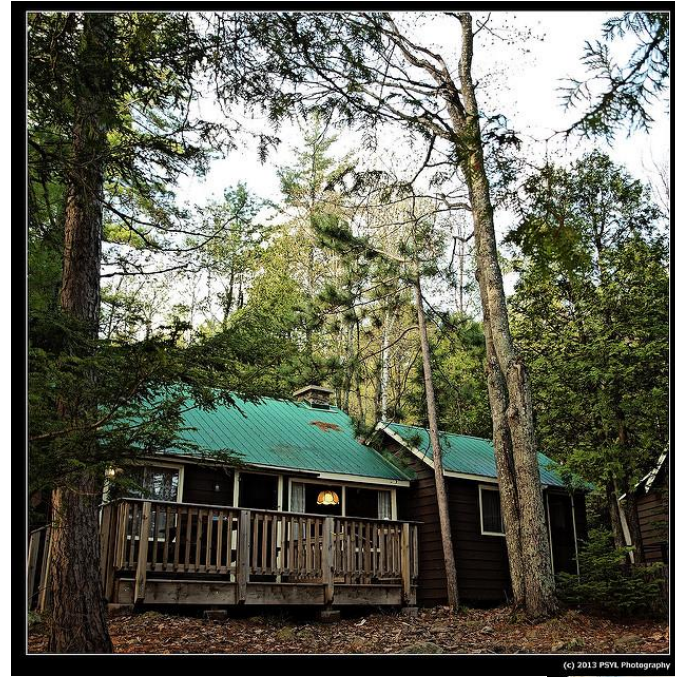
Conseil de recherches en
sciences humaines du Canada

Canada

Where in the world Is Haliburton County?



Windy Pine

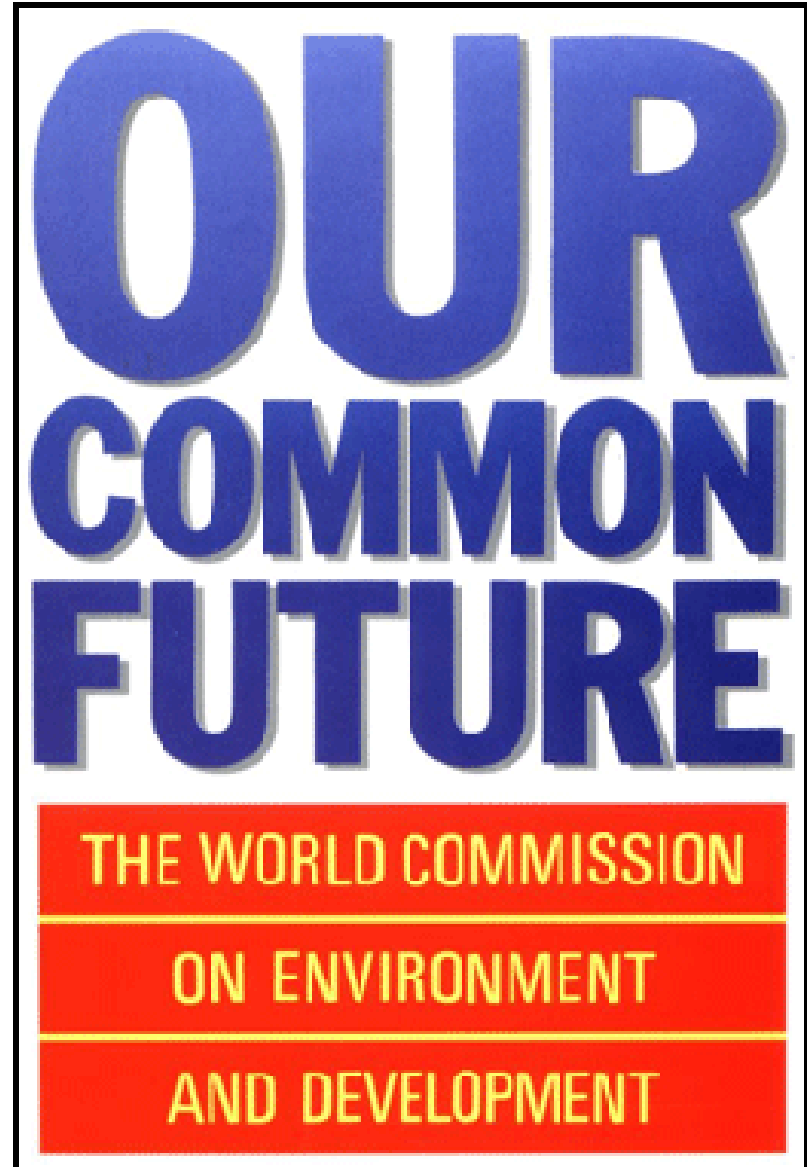


She took great interest in the establishment of the Canadian Studies program at Trent University and in 1982 donated the property to be used as a retreat for faculty and students engaged in Canadian studies.

Mary Northway, Professor of Psychology and Director of Research of the Institute for Child Studies at University of Toronto bought a property on Lake Kushog, Haliburton County and started a tripping camp for girls in 1941.



Inspired by “Our Common Future”, the Report of the UN’s Brundtland Commission in 1987, Professors John Wadland and Tom Whillans launched an interdisciplinary honours Bioregionalism Course at Trent University in the autumn of 1989 focused on the Haliburton Highlands with Windy Pine as its base.





U-Links Centre for Community-Based Research

AGING WELL



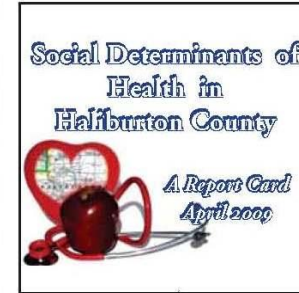
SHARE THE ROAD



WHERE DO YOU SEE
ROOM FOR COMMUNITY
DEVELOPMENT?



SOCIAL DETERMINANTS
OF HEALTH



POVERTY REDUCTION
STRATEGY



In partnership with the Township of Minden Hills and Trent University

U-Links Centre for Community-Based Research



Supporting Social, Cultural, Environmental and Economic Development in Haliburton County





Examples of Impact on Policy

- 
- Active Transportation Plan
 - Local Food Policy
 - Poverty Reduction Strategy
 - Recycling
 - Shoreline Evaluation
 - Aging Well Master Plan
 - Social Determinants of Health

Background

"By integrating our coursework into a community project, we were challenged to examine how different people are influenced by policies, and how to best present the issues and solutions to a diverse audience," said Emily Amon, a third-year ERS student who took Professor Hill's class this past fall. "We learned to respect multiple forms of knowing, and value community support in making these decisions, and discussing environmental problems."

Environmental Policy Rooted in Community

July 28, 2016



Environmental & Resource Science/Studies 3120H: Canadian Environmental Policy Dr. Stephen Hill



Greywater Discharge in the Kawartha Lakes

Emily Amon ERST-4580H-W 2016

Supervisors: Tom Whillans, Trent University & Brett Tregunno, Kawartha Conservation

What is Greywater?

- **Greywater** refers to the soapy, waste water collected from sinks, appliances, and showers aboard a vessel
- Waste water collected from toilets is referred to as *blackwater*
- These two streams of waste are separated and treated differently in boats



Is Greywater a Concern?

- Greywater can vary in water quality, and can be contaminated by nutrients such as phosphorus and nitrogen, personal care products, cleaning chemicals, bacteria, coliforms, and pathogens
- Many greywater vessels are not properly equipped to store or treat greywater
- Instead, small vessels often directly discharge wastes from the sinks into the surrounding waters
- The potential impacts of this dumping have been overlooked in the design of lake, and water quality management plans because it is unclear whether or not these discharges are having a noticeable negative effect

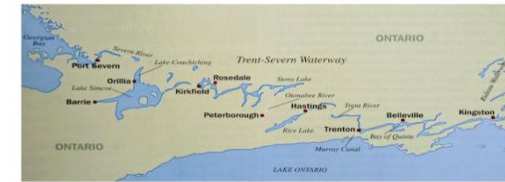
Project Focus

- The goals of this research were to:
- Evaluate the risks greywater discharge pose to water quality in the Kawartha lakes along the Trent Severn Waterway (TSW)
- Estimate phosphorus loading in target lakes due to greywater discharge, and identify potentially sensitive areas on each target lake (Sturgeon, Scugog, Pigeon, Balsam, Cameron)
- Evaluate the effectiveness of current greywater management plans, and accessibility and of septic pump-out facilities along the TSW
- Engage the public to identify current boater greywater management practices, and methods of improving appropriate greywater disposal



Methodology

- Common greywater contaminants, and water quality ranges were identified through a literature review
- Using data from the TSW on boat traffic, as well as water quality reports from Kawartha Conservation, approximate associated phosphorus loading was calculated for the target lakes (Sturgeon, Scugog, Pigeon, Balsam, Cameron)
- Via online survey, community members identified their normal greywater practices and concerns
- Happy Days Houseboats provided a tour of their facilities to showcase different greywater technologies, and tank systems



Preliminary Outcomes

- Community members are divided about whether or not greywater should be a concern for lake stewards, due in part to the relatively low numbers of large vessels traveling in the Kawarthas
- Impacts of greywater discharge are exacerbated by the use of phosphorus rich soaps, and high fecal coliform contamination, directly released within busy, and poorly flushed, docking sites; these conditions can encourage eutrophic conditions, poor water quality, and shellfish contamination
- Some Kawartha lakes do not have access to pump-out facilities, in others, cost and awareness can be a barrier
- Greater education, simple retrofits (adding a greywater holding tank in older boats), increased access to pump out facilities, and regulation are all potential methods of reducing greywater discharge



TRENT UNIVERSITY

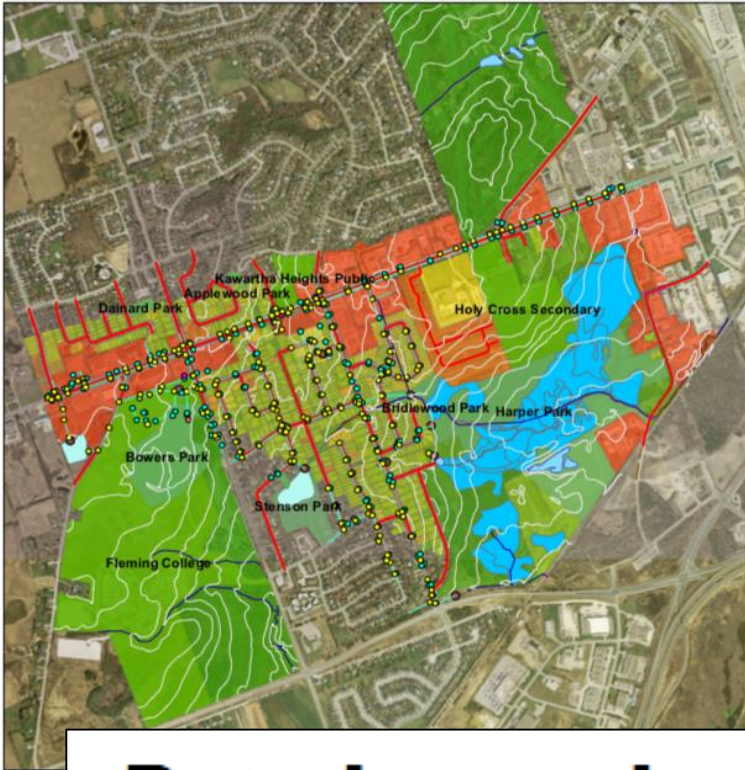


KAWARTHA CONSERVATION
Discover · Protect · Restore

Sustainable Stormwater Management: Protecting Peterborough's Harper Creek through Effective

Policy & Priority placement of Rain Gardens (2017)

Harper Creek Watershed Stormwater Hot Spots



Legend
Contour L
Storm Man
Storm Plu
Clean Out
Catchbas
Discharge

Introduction



Who am I?

- 4th year Bachelor of Environmental Sciences and Studies Student at Trent University
- Community based researcher, **studying sustainable stormwater management**
- Identifying **stormwater hotspots** in the Harper Creek Watershed, opportunities for **low impact development (LID) projects**, and sustainable **stormwater management policy**

Why am I here?

- Discuss environmental implications of urbanization on stormwater management
- Express support for the variable rate stormwater fee
- Share **realistic solutions to reduce stormwater impacts**,

Peterborough stormwater protection fee launched for 2018 city tax bills

program

Community Based Research Creates a Buzz

Student innovation at Trent University, Peterborough College showcased

NEWS Apr 07, 2016 Peterborough Examiner

Trent Student Conducting Crucial Watershed Research in Harper Park

November 29, 2016

Environmental science student, Emily Amon, takes part research project

Trent University Student – Solutions to #PTBO Stormwater Runoff Pollution

U-Links Community Impact Study Underway

Wednesday, March 7, 2018

TrentU Master's Candidate Emily Amon studies the effectiveness of Community Based Research

But does it Affect Change?



How Can We Assess Impact?

- Complex, Non-Linear Systems at Play
- Impact is Contextual, and Attributed Differently by Different Stakeholders
- Impacts can Relate to Project Process (ie. Relationship Building) & Outcomes (ie. Report Recommendations)
- Evaluations Theories Can Provide Defensible Methodology
- Realist/Contribution Analysis (Mayne, 2008)

Current Research

Theory of
Change
Workshop

Interviews With
Past Project
Hosts and U-
Links Admin

Community
Survey on
Impacts

Contribution
Narrative
Analysis

Reconstruct
Theory:
Contribution
Criteria

WHAT IS A THEORY OF CHANGE?

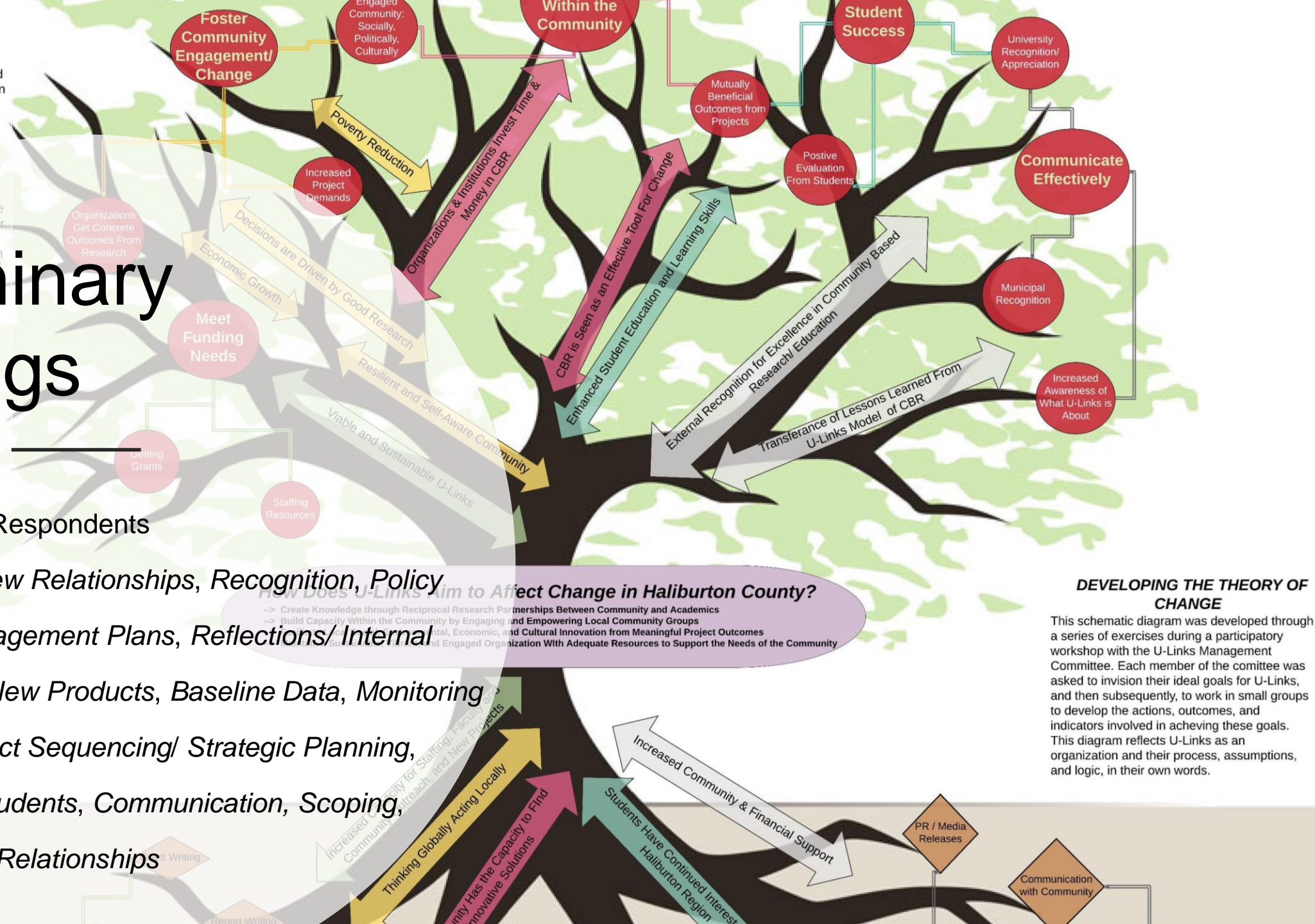
A theory of change is an illustration of how and why a desired change is expected to happen in a particular context. The focus is on the "missing middle" between what a program or change initiative does (its activities) and how these lead to desired goals being achieved. A theory of change identifies the long-term goals of an organization, and then works backwards to identify all the conditions (outcomes) that must be in place, and how these related to one another causally, in order for the goals to occur. Through this approach the link between activities and achievement, and long-term goals are more clearly understood. Change comes both from the inside and ongoing adaptation.

It helps to answer:

- What assumptions does U-Links hold about how change happens?
- What is U-Links' vision for Haliburton County?
- Who does U-Links serve?
- How does U-Links know if it is meeting its goals?
- How do U-Links' activities relate to meeting objectives and long-term outcomes?

Preliminary Findings

- 26 Interviews
- ~100 Survey Respondents
- Outcomes: *New Relationships, Recognition, Policy Change, Management Plans, Reflections/ Internal Evaluations, New Products, Baseline Data, Monitoring*
- Factors: *Project Sequencing/ Strategic Planning, Competent Students, Communication, Scoping, Student-Host Relationships*




How Does U-Links Aim to Affect Change in Haliburton County?

- > Create Knowledge through Reciprocal Research Partnerships Between Community and Academics
- > Build Capacity Within the Community by Engaging and Empowering Local Community Groups
- > Increase Community Outreach, and New Projects
- > Engage Organization With Adequate Resources to Support the Needs of the Community

DEVELOPING THE THEORY OF CHANGE

This schematic diagram was developed through a series of exercises during a participatory workshop with the U-Links Management Committee. Each member of the committee was asked to envision their ideal goals for U-Links, and then subsequently, to work in small groups to develop the actions, outcomes, and indicators involved in achieving these goals. This diagram reflects U-Links as an organization and their process, assumptions, and logic, in their own words.

How do universities benefit from their communities?



In order to be **good institutional citizens**, universities should understand the **transformative potential** they hold within **their communities**.

In **exercising** this in our teaching and research, we **build capacity** with **students**, and **communities**.

Community-based teaching
& research as transformative
for teaching, research and
communities.

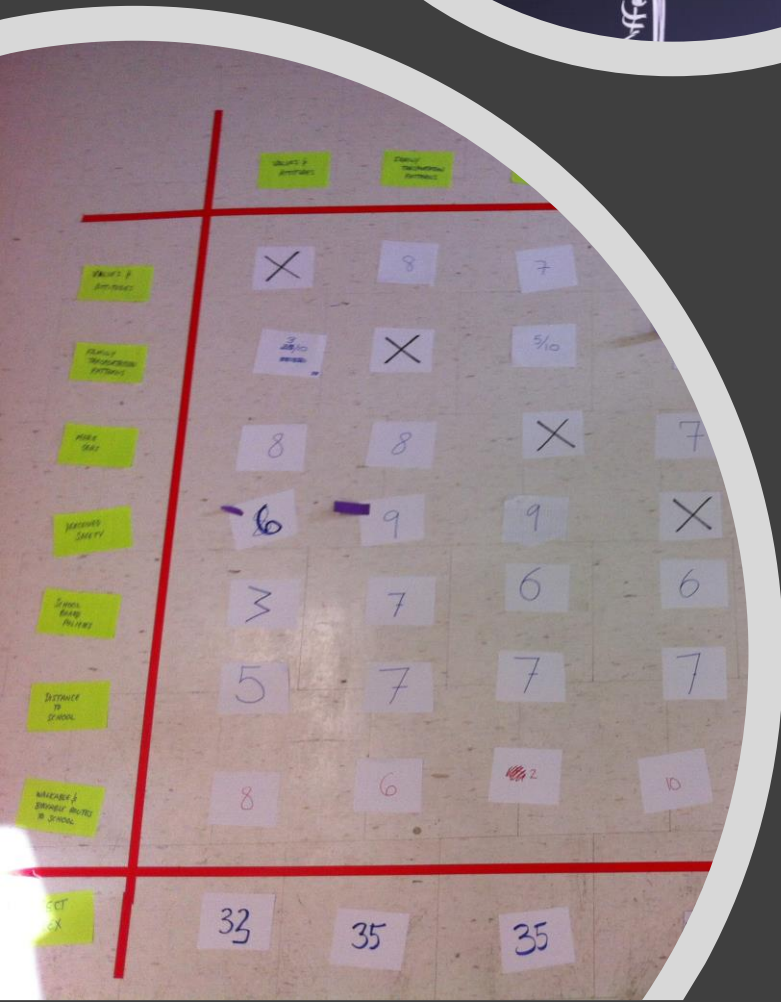
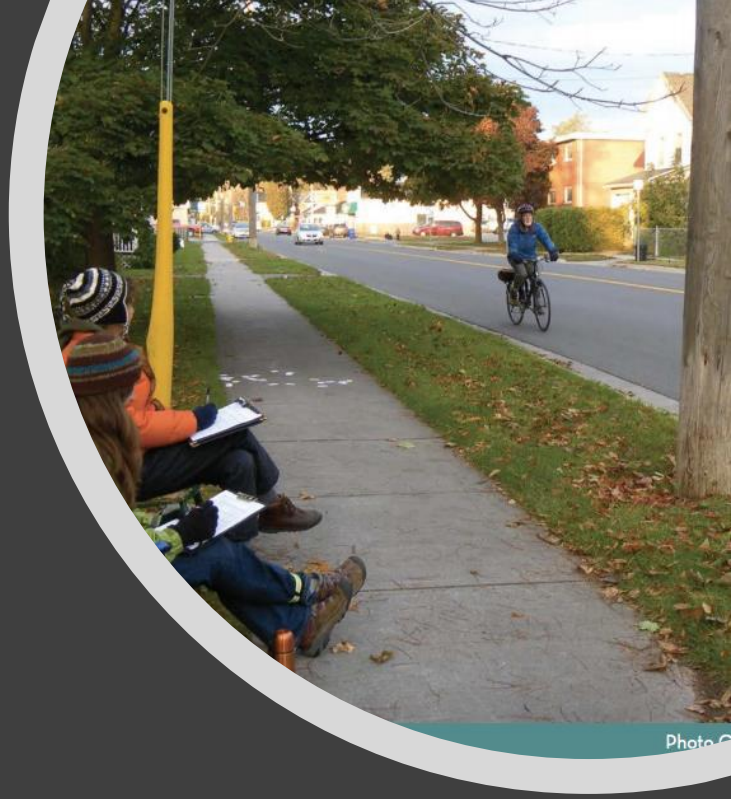
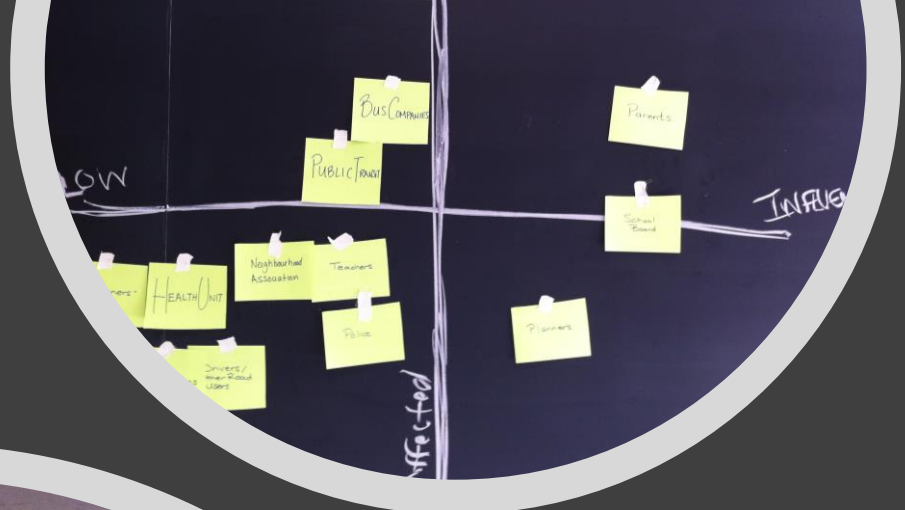
This is a foundation for
nurturing the legitimacy and
relevance of universities.





Community-Engaged Teaching & Research...

- Directly involves communities, their needs and questions
- Is a tool for community development and community change
- Involves students, so they can apply the skills they have learned in class (i.e., experiential)
- Is deeply embedded in place and context (cf. Latour, 2005)



Community-university work can transform teaching & learning!



For example, a water festival



Abbey
ARDEN

For example: Abbey
Gardens in Haliburton



Potential models for community-based research



Thank you.

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